

II. Listing of Claims

Please amend the claims as follows:

1. (Currently Amended) A screw (1) comprising a threaded shank (2) with a ~~force~~ torque application location ~~(4)~~ feature for transmitting torque and a screw tip (6), the threaded shank (2) being composed of a shank core (10) and an ~~an~~ automatically a thread-forming thread (12), and the thread (12) being formed as an elevation which extends helically over the shank core (10), ~~is delimited by~~ and forms two flanks (15, 16) which converge ~~in~~ at an outer thread edge (14) and has a height ~~(H)~~ H measured radially from the shank core (10) to the thread edge (14), the thread (12) having, ~~seen as viewed~~ seen as viewed in radial profile, at the thread edge (14) a specific apex angle ~~(α)~~ α formed between the adjacent flanks (15, 16), ~~characterized in that~~ at least one of the two flanks (15, 16) of the thread (12) is formed concavely in the region between the shank core (10) and the thread edge (14), ~~seen as viewed~~ seen as viewed in radial profile, in such a way that the apex angle ~~(α)~~ α is less than a flank angle ~~(α_F)~~ α_F ~~enclosed~~ defined between imaginary straight flank lines ~~(FG)~~ FG ~~determined in each case~~ formed by a lowest point ~~(GF)~~ GF of the thread and the thread edge (14).
2. (Currently Amended) The screw as claimed in claim 1, ~~characterized in that~~ wherein both of the flanks (15, 16) are concavely formed ~~preferably in the same manner.~~

3. (Currently Amended) The screw as claimed in claim 1 ~~or 2~~, characterized in ~~that the/each flank (15, 16) extends~~ wherein one or both of the flanks extend concavely, at least over part of the radial height ~~(H)~~ H, from the shank core ~~(10)~~.
4. (Currently Amended) The screw as claimed in claim 1 ~~or 2~~, characterized in ~~that the/each flank (15, 16) extends~~ wherein one or both of the flanks extend initially in a straight line from the shank core 40, corresponding to the straight flank line ~~(FG)~~ FG, and only extends concavely from a specific flank height ~~(h_F)~~ h_F.
5. (Currently Amended) The screw as claimed in ~~one of claims 1 to 4~~, characterized in ~~that the flanks (15, 16)~~ claim 1, wherein the flanks extend substantially in a straight line in an outer partial region adjoining the thread edge ~~(14)~~, seen as viewed in profile.
6. (Currently Amended) The screw as claimed in ~~one of claims 1 to 5~~, characterized in ~~that~~ claim 1, wherein the apex angle ~~(α)~~ α lies approximately in the range from 25° to 35°.
7. (Currently Amended) The screw as claimed in ~~one of claims 1 to 6~~, characterized in ~~that~~, claim 1, wherein at least in a partial region of the thread ~~(12)~~, the outer thread edge ~~(14)~~ extends in a wave form in the radial direction with an amplitude ~~(U)~~ U between wave crests ~~(20)~~ with the thread height ~~(H)~~ H and wave troughs ~~(22)~~ with a height ~~(h)~~ h reduced by the amplitude ~~(U)~~ U, and

the thread (12) has, at least in the region of one of its the flanks (15/16), in the region of the wave troughs (22) of the thread edge (14) indentations (24), which interrupt the surface of the flank (15/16) and the outer ~~delimitation~~ boundary of which is the thread edge (14), the thread (12) respectively having in the regions of the wave crests (20) of the thread edge (14) that are not interrupted by indentations (24) the ~~specific~~ first apex angle (α) $\underline{\alpha}$, formed between the flanks (15/16), and a second apex angle (α') $\underline{\alpha}'$, in the lowest region of the wave troughs (22) of the thread edge (14).

8. (Currently Amended) The screw as claimed in claim 7, ~~characterized in that~~ wherein the indentations (24) have surfaces extending substantially in a straight line, seen in the radial direction, in the profile of the thread (12), the second apex angle (α') $\underline{\alpha}'$ being greater than the first apex angle (α) $\underline{\alpha}$ and lying in ~~particular~~ approximately in the range from 30° to a maximum of 58°.
9. (Currently Amended) The screw as claimed in claim 7, ~~characterized in that~~ wherein the indentations (24) have, ~~seen~~ as viewed in profile, concave surfaces, at least in certain portions, the second apex angle (α') $\underline{\alpha}'$ being of approximately the same order of magnitude as the first apex angle (α) $\underline{\alpha}$.
10. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 9,~~ claim 7, for use for screwing into softer materials, ~~such as~~ including wood or wood-like materials, the amplitude (U) \underline{U} of the waved thread edge (14) is approximately 0.2 to 0.4 times the thread height (H) \underline{H} .

11. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 9,~~ characterized in that claim 7, for use for screwing into harder or more resistant materials, ~~in particular~~ including plastics or metals, the amplitude ~~(U)~~ U of the waved thread edge ~~(14)~~ is approximately 0.05 to 0.15 times the thread height ~~(H)~~ H.
12. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 9,~~ characterized in that claim 7, for universal use for screwing into various materials, the amplitude ~~(U)~~ U of the waved thread edge ~~(14)~~ is approximately 0.1 to 0.3 times the thread height ~~(H)~~ H.
13. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 12,~~ characterized in that claim 7, wherein the indentations ~~(24)~~ have in each case a depth ~~(Z)~~ Z, which is measured inward in the radial direction from a diameter ~~(D)~~ D determined by the wave crests ~~(20)~~ of the thread edge ~~(14)~~ and is less than/equal than or equal to the height ~~(H)~~ H of the thread ~~(12)~~.
14. (Currently Amended) The screw as claimed in claim 13, ~~characterized in that,~~ for use for screwing into softer materials, ~~such as~~ including wood or wood-like materials, the radial depth ~~(Z)~~ Z of the indentations ~~(24)~~ is approximately 0.8 to 1 times the thread height ~~(H)~~ H.
15. (Currently Amended) The screw as claimed in claim 13, ~~characterized in that,~~ for use for screwing into harder or more resistant materials, ~~in particular~~

including plastics or metals, the radial depth ~~(Z)~~ \underline{Z} of the indentations ~~(24)~~ is approximately 0.2 to 0.3 times the thread height ~~(H)~~ \underline{H} .

16. (Currently Amended) The screw as claimed in claim 13, ~~characterized in that,~~ for universal use for screwing into various materials, the radial depth ~~(Z)~~ \underline{Z} of the indentations ~~(24)~~ is approximately 0.3 to 0.8 times the thread height ~~(H)~~ \underline{H} .
17. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 16,~~ characterized in that claim 7, wherein the wave crests ~~(20)~~ are spaced apart from one another in the circumferential direction ~~in each case~~ by a pitch angle ~~(δ)~~ $\underline{\delta}$, which, for use for screwing into softer materials, ~~such as~~ including wood or wood-like materials, lies in the range from 30° to 45°.
18. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 16,~~ characterized in that claim 7, wherein the wave crests ~~(20)~~ are spaced apart from one another in the circumferential direction ~~in each case~~ by a pitch angle ~~(δ)~~ $\underline{\delta}$, which, for use for screwing into harder or more resistant materials, ~~in particular~~ including plastics or metals, lies in the range from 15° to 24°.
19. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 16,~~ characterized in that claim 7, wherein the wave crests ~~(20)~~ are spaced apart from one another in the circumferential direction in each case by a pitch angle ~~(δ)~~ $\underline{\delta}$, which, for use for screwing into various materials, lies in the range from 20° to 35°.

20. (Currently Amended) The screw as claimed in ~~particular in one of claims 7 to 19, characterized in that~~ claim 7, wherein the indentations (24) are in each case ~~delimited~~ formed from the adjacent face of the flank (15, 16) by a limiting line (26), the limiting line (26) having substantially the form of a parabola with lateral, approximately V-shaped limiting portions (28), a thread portion (30) that is uninterrupted with respect to its flanks (15, 16) being respectively formed between two neighboring indentations (24) in the region of the wave crests (20) and the limiting portions (28) that lie on both sides of ~~this~~ the thread portion (30) enclosing an angle ~~(γ)~~ γ , which lies in the range from 30° to 90°.
21. (Currently Amended) The screw as claimed in claim 20, ~~characterized in that~~ wherein the limiting portions (28) merge with one another in the region of each ~~of the wave crest (20)~~ crests over a rounding with a radius (r) r , which corresponds approximately to 0.1 to 0.3 times the thread height (~~H~~) H .
22. (Currently Amended) The screw as claimed in ~~claim 20 or 21, characterized in that~~ claim 20, wherein each indentation (24) is symmetrically formed in such a way that its limiting portions (28) extend in each case at the same angle to a radial axis (31) of the indentation (24) in the screwing-in E and unscrewing A directions (~~E/A~~) of the screw.
23. (Currently Amended) The screw as claimed in ~~claim 20 or 21, characterized in that~~ claim 20, wherein each indentation (24) is asymmetrically formed in such a way that the front limiting line (28) in the screwing-in direction (~~E~~) E extends more steeply than the rear limiting line (28), an axis (32) of the indentation (24)

being offset in relation to a radial center line (34) of the wave trough (22) of the thread edge (14) by an acute angle (β) β in the screwing-in direction (E), this the angle (β) β preferably being approximately of the order of magnitude of 10° to 25°.

24. (Currently Amended) The screw as claimed in ~~one of claims 7 to 23,~~ characterized in that claim 7, wherein the thread (12) extends up to the a pointed end (18) of the screw tip (6), the thread (12) being configured with the indentations (24) and the waved thread edge (14) from the screw tip (6), at least over the first adjoining turn of the thread.
25. (Currently Amended) The screw as claimed in ~~one of claims 7 to 24,~~ characterized in that claim 7, wherein the indentations (24) are formed lying opposite one another on both of the flanks (15, 16) of the thread (12).
26. (Currently Amended) The screw as claimed in ~~one of claims 7 to 25,~~ characterized in that, claim 7, wherein in the region of the screw tip (6), the spacing of the indentations (24) becomes smaller toward a pointed its end (18) of the screw tip.
27. (Currently Amended) The screw as claimed in ~~particular in one of claims 1 to 26,~~ characterized in that claim 1, wherein the thread (12), configured as a one-start thread, has a lead (S) S which is approximately 0.5 times the outer thread diameter (D) D .

28. (Currently Amended) The screw as claimed in ~~one of claims 1 to 27,~~
~~characterized in that~~ claim 1, wherein the screw tip (6) is formed with
automatically piercing properties.